



WORKPLACE SAFETY 101

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WHAT YOU NEED TO KNOW

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Safety League of Champions

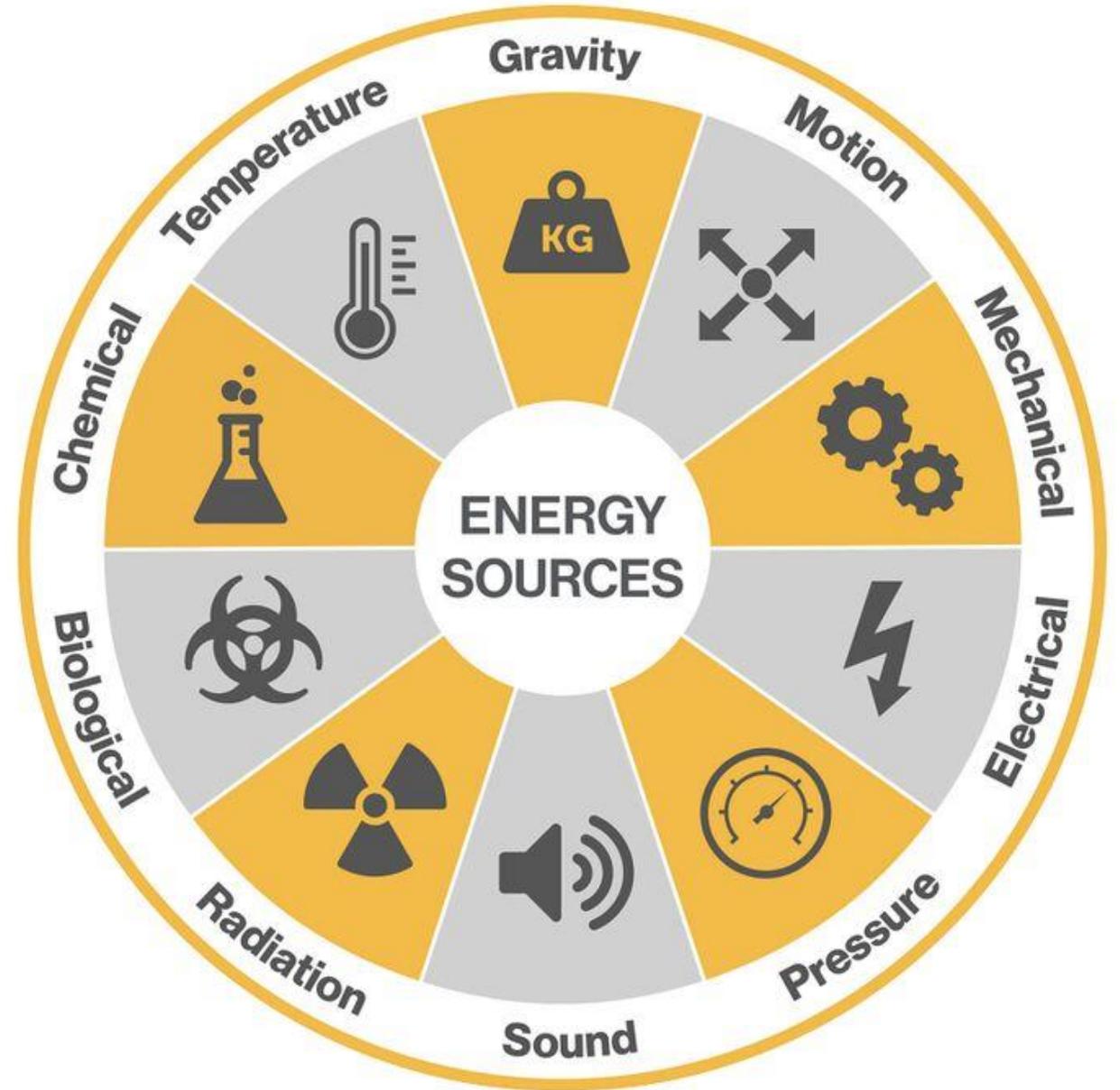
# Incident Root Causes

- As organizations have improved their incident learning, hazard recognition has emerged as a root cause in about half of all incidents (Alexander et al., 2017; Haslam et al., 2005)
- If we want to get better at preventing Serious Injuries and Fatalities, we need everyone to be able to identify hazards more effectively!

# STCKY Energy Wheel

## *S#!T That Can Kill You*

- Stats show that the majority of serious injuries, illnesses and deaths come from high energy sources
  - Gravity
  - Motion
  - Mechanical
  - Electrical
  - Pressure
  - Sound
  - Radiation
  - Biological
  - Chemical
  - Temperature



# Motion Energy

- Definition: The energy from the position change of moving objects.
- Examples: Moving vehicles, swinging crane loads, rolling carts, opening/closing doors.
- Hazards: Risk of collision, trapping, and struck by injuries.



# Gravity



- Definition: Energy from a natural force pulling objects to the ground.
- Examples: Objects falling from heights, failing brake causing vehicle to roll, workers falling from heights
- Hazards: Falls from heights, dropped objects.



# Sound

- Definition: energy carried by sound waves, which are vibrations that travel through a medium such as air, water, or solids.
- Examples: Saws, impacting tools, heavy equipment, compressors, grinding.
- Hazards: Insomnia, high blood pressure, hearing loss, poor communication during emergency.





# Radiation

- Definition: also called radiant energy, is the energy transferred or emitted in the form of electromagnetic radiation or particles.
- Examples: Microwave towers, nuclear reactors, solar.
- Hazards: Radiation sickness, burns, long-term health effects.

# Mechanical



- Definition: Energy possessed by an object due to its motion or its position. Kinetic energy + Potential energy. Comes from powered machines (rotation, vibration, tension, compression).
- Examples: Rock crusher, mixer, drill, pump rigs, saws.
- Hazards: Pinch points, entanglement, crush injuries.

# Biological

- Definition: Energy from living sources.
- Examples: Viruses, bacteria, plants, insects, animals, human behavior.
- Hazards: Infections, allergic reactions, workplace violence, harassment.



## Examples of Electrical Hazards



Overhead  
Power Lines



Damaged/Faulty  
Tools & Equipment



Inadequate Wiring &  
Overloaded Circuits



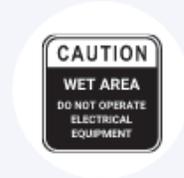
Exposed Electrical  
Parts



Improper  
Grounding



Damaged  
Insulation



Wet  
Conditions

SafetyCulture

# Electrical

- Definition: Presence of electrical charge or current (AC/DC, batteries, outlets).
- Examples: Lightning, static electricity, electrical wiring, power lines, damaged cords, faulty equipment.
- Hazards: Electric shock, burns, fires.



# Pressure

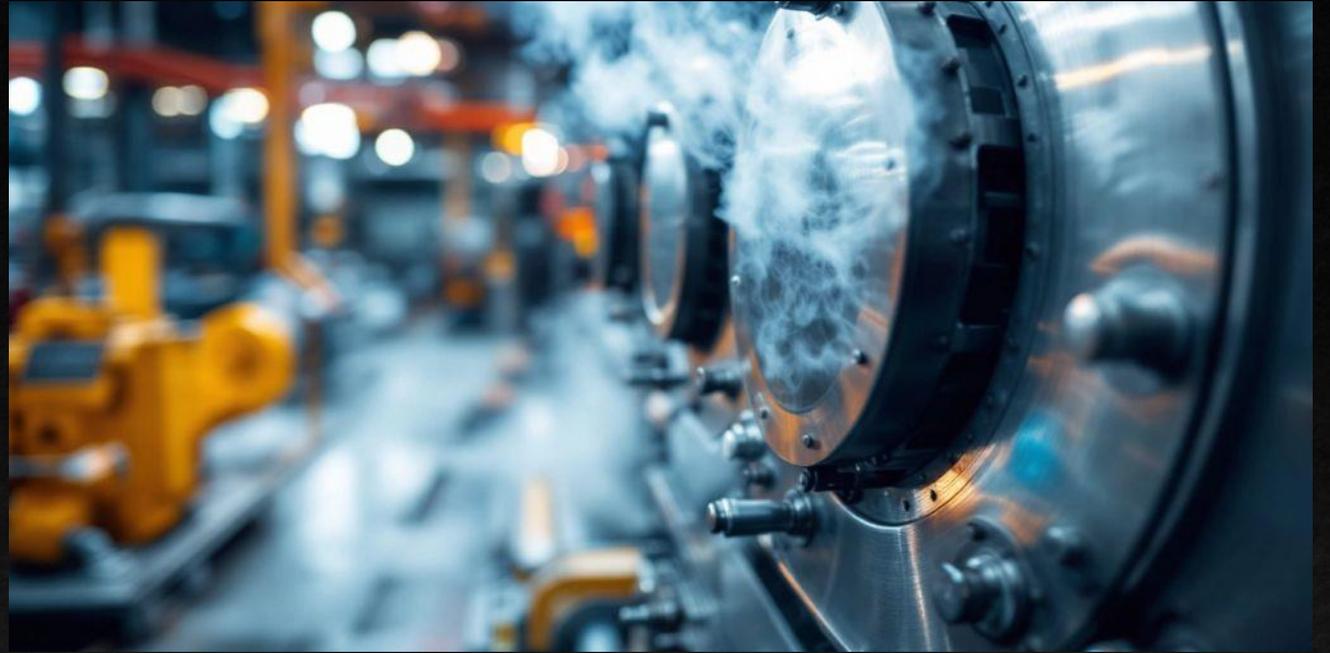


- Definition: Created by gas/liquid under compression or vacuum.
- Examples: Hydraulic systems, car tires, teapots, oxygen/car tire vessels, compressed gas tank.
- Hazards: Explosion, sudden release, rapid decompression injuries.



# Temperature

- Definition: Intensity of heat or cold in an object or substance
- Examples: Ovens, refrigerators, winter/summer exposure, fires.
- Hazards: Burns, hypothermia, heat stress.



# Chemical



- Definition: Toxic objects or substances that pose health risks
- Examples: Solvents, engine exhaust, silica, wood dust, liquid concrete
- Hazards: Burns, poisoning, environmental damage.



# Before You Start Work...



Checklist before you start working in a new situation



**1. Orientation!**



**2. Task Specific Training**



**3. Daily Hazard Assessments**

# Safety Orientation

Before starting work at a new company or a new workplace, you **NEED** to go through a safety orientation that informs you about the hazards you may be exposed to

Basics of Health & Safety Policies and Procedures

Rights & Responsibilities

Worker Safety Representatives

Who to talk to if you have a concern

Emergency Response Plan

Location of Emergency equipment (fire extinguishers, first aid, eye wash)

Legislation that applies, company or site rules that exceed the law

Required Personal Protective Equipment

Actual and potential hazards of the work being conducted

Incident Reporting Requirements

Training Requirements

- The company you work for needs to provide you with training before you complete tasks that require it
  - Working at Heights
  - Material Handling Equipment
  - WHMIS (the products you'll be using)
  - Powered Elevating Work Platforms
  - Trenching
  - Lock Out Tag Out
  - Confined Spaces
  - Respirator FIT
  - Workplace Violence & Harassment
  - Propane
  - Traffic Control Person
  - Forklift/Telehandler
  - Ladders/Scaffolds
  - Task Specific Procedures...

# Training

# Daily Hazard Assessments

Before starting work each day, you need to be informed about the hazards for the work you'll be completing. The Daily JHA/JSA/FLRA should cover:

1. Tasks to be completed
2. Hazards associated with each task
3. The level of risk those hazards present
4. Safety controls to be used to mitigate the hazards

If tasks are added throughout the day, the assessment should be updated and reviewed with you



# Question & Answer

